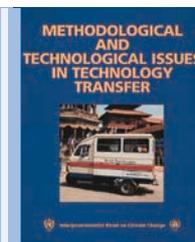
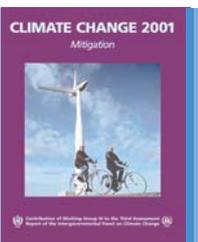
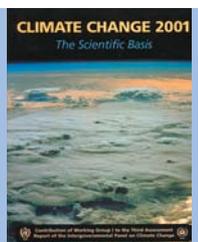
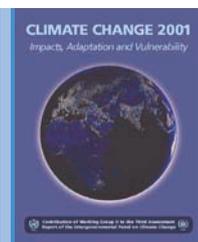
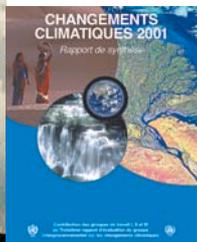


Activities

# Ongoing IPCC Activities

In the years 2005 to 2007 the Intergovernmental Panel on Climate Change (IPCC) will finalise several reports. In the following a brief overview on the scope of these reports and schedule for their preparation is provided. Further information including the agreed outlines of the reports, lists of authors, meetings and review periods can be found on [www.ipcc.ch](http://www.ipcc.ch) and the websites of the respective Working Group or Task Force.

<b>2005</b> January February March April May June July August September October November December	<p><b>Special Report on Safeguarding the Ozone Layer and the Global Climate System</b></p> <p><b>Special Report on Carbon Dioxide Capture and Storage</b></p>
<b>2006</b> January February March April May June July August September October November December	<p><b>2005 IPCC Guidelines for National Greenhouse Gas Inventories</b></p>
<b>2007</b> January February March April May June July August September October November December	<p><b>AR4 WGI - Climate Change 2007: The Physical Science Basis</b></p> <p><b>AR4 WG II - Climate Change 2007: Impacts, Adaptation and Vulnerability</b></p> <p><b>AR4 WG III - Climate Change 2007: Mitigation of Climate Change</b></p> <p><b>AR4 Synthesis Report</b></p> <p><b>Technical Paper on Climate Change and Water</b></p>



# IPCC Fourth Assessment Report (AR4)

In September 2001 the IPCC decided to continue to prepare comprehensive assessment reports and in November 2003 it agreed on the outlines of the three working group contributions to the Fourth Assessment Report (AR4). These outlines were developed in two scoping meetings. Several preparatory workshops and expert meetings have also been held on topics such as climate change and sustainable development, integrated analysis of adaptation and mitigation, detection and attribution of effects, uncertainties and risk, the science to address UNFCCC Article 2 and climate sensitivity. The author teams for the AR4 were assembled in mid 2004. The AR4 will be completed in the year 2007 in such a way that the contribution of Working Group I will be finalised in early 2007 and the contributions of Working Groups II and III in mid 2007. The chapter structure of the working group contributions to the AR4 is summarised below.

## **Working Group I Climate Change 2007: The Physical Science Basis**

1. Historical Overview of Climate Change Science
2. Changes in Atmospheric Constituents and in Radiative Forcing
3. Observations: Surface and Atmospheric Climate Change
4. Observations: Changes in Snow, Ice and Frozen Ground
5. Observations: Oceanic Climate Change and Sea Level
6. Paleoclimate
7. Couplings Between Changes in the Climate System and Biogeochemistry
8. Climate Models and their Evaluation
9. Understanding and Attributing Climate Change
10. Global Climate Projections
11. Regional Climate Projections

## **Working Group II Climate Change 2007: Impacts, Adaptation and Vulnerability**

1. Assessment of Observed Changes and Responses in Natural and Managed Systems

2. New Assessment Methodologies and the Characterisation of Future Conditions
3. Fresh Water Resources and their Management
4. Ecosystems, their Properties, Goods and Services
5. Food, Fibre and Forest Products
6. Coastal Systems and Low-lying Areas
7. Industry, Settlement, and Society
8. Human Health
9. Africa
10. Asia
11. Australia and New Zealand
12. Europe
13. Latin America
14. North America
15. Polar Regions (Arctic and Antarctic)
16. Small Islands
17. Assessment of Adaptation Practices, Options, Constraints and Capacity
18. Inter-relationships between Adaptation and Mitigation
19. Assessing Key Vulnerabilities and the Risk from Climate Change
20. Perspectives on Climate Change and Sustainability

## **Working Group III Climate Change 2007: Mitigation of Climate Change**

1. Introduction
2. Framing issues
3. Issues related to mitigation in the long-term context
4. Energy supply
5. Transport and its infrastructure (road, rail, aviation, shipping, including transport fuels)
6. Residential/commercial (including services)
7. Industry
8. Agriculture (including land use and biological carbon sequestration)
9. Forestry (including land use and biological carbon sequestration)
10. Waste management
11. Mitigation from a cross-sectoral perspective
12. Sustainable development and mitigation
13. Policies, instruments and co-operative arrangements

## AR4 Synthesis Report

The AR4 Synthesis Report (SYR), which will be finalised in the last quarter of the year 2007, will synthesize and integrate material contained in the three Working Group contributions to the AR4 and deal with cross cutting themes. It will be written in an accessible, non-technical style suitable for policymakers.

### Outline of Topics

1. Observed changes in climate and its effects
2. Causes of change
3. Climate change and its impacts in the near and long term under different scenarios
4. Adaptation and mitigation options and responses, and the inter-relationship with sustainable development, at global and regional levels
5. The long term perspective: scientific and socio-economic aspects relevant to adaptation and mitigation, consistent with the objectives and provisions of the Convention, and in the context of sustainable development
6. Robust findings, key uncertainties

## Special Reports

### Special Report on Safeguarding the Ozone Layer and the Global Climate System: Issues Related to Hydrofluorocarbons (HFC) and Perfluorocarbons (PFC)

This report is prepared jointly by IPCC Working Groups I and III and the Technology and Economic Assessment Panel (TEAP) of the Montreal Protocol in response to decisions by the Eighth Conference of Parties to the UN Framework Convention on Climate Change (UNFCCC) and the Fourteenth Meeting of the Parties to the Montreal Protocol. It is scheduled for completion in April 2005 and will be submitted to the Subsidiary Body for Scientific and Technological Advice (SBSTA) of the UNFCCC and the Open-ended Working Group of the Montreal Protocol.

The report will provide a brief summary of relevant findings regarding the relation of ozone layer depletion and global warming, information on options to replace ozone-depleting substances that simultaneously contribute to the objective of the Climate Convention and the Montreal Protocol, including a

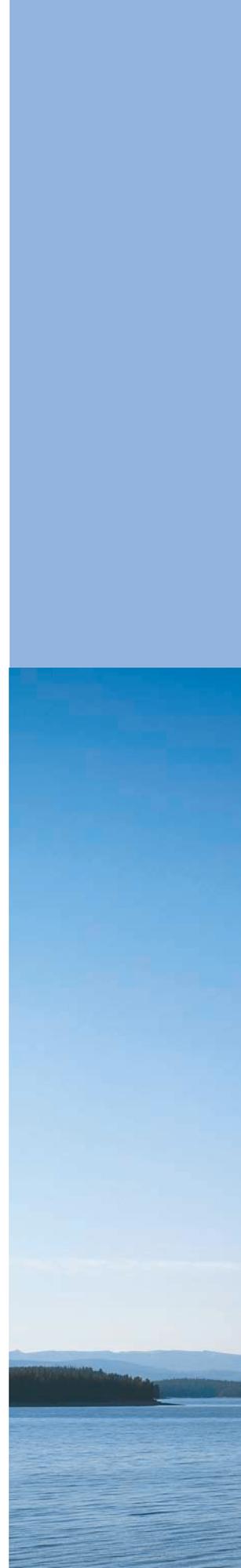
number of environmental, health, safety, availability and technical performance considerations, and publicly available information on currently installed and planned global production capacities and a summary of available demand and emission projections of HFCs and PFCs. The outline of the report is summarised below.

1. Ozone and Climate
2. Chemical and Radiative Effects of HFCs, PFCs, and their Possible Replacements
3. Introduction and Methodologies
4. Refrigeration
5. Residential and Commercial Air Conditioning and Heating
6. Mobile Air Conditioning
7. Foams
8. Medical Aerosols
9. Fire Protection
10. Industrial aerosols, solvents and HFC-23
11. Current and Future Supply, Demand and Emissions of HFCs and PFCs, plus Emissions of CFCs, HCFCs and Halons

### Special Report on Carbon Dioxide Capture and Storage

This Special Report was initiated by the IPCC following an invitation from the UNFCCC, recognizing that carbon dioxide capture and storage is an emerging technological option and that there is a growing interest in the scientific and technical community in the subject and a growing availability of literature. The report is prepared by Working Group III and scheduled for completion in the second half of 2005. It covers various capture and storage systems, addresses questions of monitoring, verification, environmental impacts and risks (e.g. leakage), legal issues, public acceptance and costs, and it places CO<sub>2</sub> capture and storage in relation to other mitigation options. The outline of the report is summarised below.

1. Introduction
2. Sources
3. Capture
4. Transport
5. Geological Storage
6. Ocean Storage
7. Carbonation and Re-use
8. Total Costs and Market Potential
9. Implications for Emission Inventories and Accounting



## 2006 IPCC Guidelines for National Greenhouse Gas Inventories

Following an invitation from the UNFCCC-SBSTA the IPCC will revise and update the "1996 Revised IPCC Guidelines for National Greenhouse Gas Inventories". The outline for that Methodology Report was agreed by the IPCC in November 2003. The Report will be completed in 2006. It will be based on the Revised 1996 IPCC Guidelines, the two IPCC Reports on Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories (2000 and 2003) and the IPCC Emission Factor Database. Experience and feedback using the existing reports and recent advances in science will also be taken into account.

The 2006 IPCC Guidelines will cover the same greenhouse gases and precursors included in the current guidelines and good practice guidance reports. New gases and sources will be added where they are judged to be significant and there to be sufficient technical information (including a GWP in the TAR) available to justify reliable methods. The development of new methods for ozone precursors is not anticipated as these are addressed under other agreements and conventions.

In the 2006 Guidelines information on each sector will be synthesized into single volumes, which will integrate and update existing material relevant to the sector and as appropriate, provide methodologies and default data to cover emissions of new sources and gases. There will also be a document on cross-cutting issues, which will integrate existing material relevant to cross-cutting issues including approaches to data collection, uncertainties, methodological choice and identification of key categories, time series consistency and recalculation, quality assurance/quality control and verification. The 2006 Guidelines will consist of the following volumes:

- Volume 1: Cross-Cutting Issues and Reporting Tables
- Volume 2: Energy
- Volume 3: Industrial Processes and Product Use
- Volume 4: Agriculture, Forestry and Other Land Use
- Volume 5: Waste

## Technical Paper on Climate Change and Water

Noting that water, its availability and quality will be among the main issues for societies and the environment under climate change the IPCC agreed to incorporate water-related topics more fully into its work. It also decided to prepare, based on information from the AR4, a technical paper on climate change and water to be released in late 2007. The paper will be aimed at decision makers engaged in all areas relevant to water resources management, climate change, strategic planning and socio-economic development and addressed also to the scientific community. The following possible areas that could be covered by the paper were identified:

1. Introduction to climate change and water
  - Observed and projected changes in climate
  - Observed and projected changes in socio-economic and environmental conditions
2. Linking climate change and water resources
  - Observed change and variability in hydrology and water resources
  - Climate change impact on hydrological cycle and water resources - projections
  - Extreme hydro-meteorological events – floods and droughts
  - Feedback mechanisms in climate involving water
  - Adaptation to climate change – water management
  - Climate change mitigation and water
  - Analysing implications of interlinkages between climate change and water resources in critical areas (systems and sectors)
  - Analysing regional implications of interlinkages between climate change and water resources
3. Policy-relevant implications and suggestion for further work